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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,654	03/28/2006	Andreas Lendlein	26538-0015	2655

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EXAMINER	
DOLLINGER, MICHAEL M	

ART UNIT	PAPER NUMBER
1796	

NOTIFICATION DATE	DELIVERY MODE
01/21/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/552,654	LENDLEIN ET AL.	
	Examiner	Art Unit	
	MICHAEL DOLLINGER	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10/09/2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/08/2005 and 01/17/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Language

1. Regarding claims 8 and 10, limitations preceded by "preferably" are interpreted as optional limitations. In the broadest interpretation of these claims, optional limitations are not necessarily present.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,388,043 B1 hereinafter referred to as '043.

4. '043 discloses biodegradable shape memory polymers in which a multiblock copolymer with a hard segment with a relatively high T_{trans} and a soft segment with a relatively low T_{trans} can be mixed or blended with a second multiblock copolymer with a hard segment with a relatively low T_{trans} and the same soft segment as that in the first multiblock copolymer [3:9-14]. The hard and soft segments may include polyesters [7:58; claim 13], polyether esters [claim 13], poly[glycolide-co-(ε-caprolactone)] [8:16], poly(ε-caprolactone) [Example 1; 19:29], and poly-p-dioxane-2-one [18:26]. The multiblock copolymers of inventive Example 1 are linked through a urethane bond by the reaction of dihydroxy homopolymers with trimethylhexane-1,6-diisocyanate [19:17-

21]. Shape memory blends may have better shape memory capabilities than the blend components alone [11:15-16]. A twin extruder is an example of standard process equipment that could be used to mix the components and process the blend [11:25-27]. In the inventive Example 1, the block components are blended in solution [19:13-17] and precipitated out of the solution after reaction [19:23-26].

5. Claims 1-10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,160,084 hereinafter referred to as '084.

6. '084 discloses biodegradable shape memory polymers in which a multiblock copolymer with a hard segment with a relatively high T_{trans} and a soft segment with a relatively low T_{trans} can be mixed or blended with a second multiblock copolymer with a hard segment with a relatively low T_{trans} and the same soft segment as that in the first multiblock copolymer [10:33-38]. The hard and soft segments may include polyesters [3:31 and 7:3], polyether esters [3:30], poly[glycolide-co-(ε-caprolactone)] [7:28], poly(ε-caprolactone) [Example 1; 14:9], and poly-p-dioxane-2-one [13:61-62]. The multiblock copolymers of inventive Example 1 are linked through a urethane bond by the reaction of dihydroxy homopolymers with trimethylhexane-1,6-diisocyanate [14:50-53]. Shape memory blends may have better shape memory capabilities than the blend components alone [10:57-58]. A twin extruder is an example of standard process equipment that could be used to mix the components and process the blend [10:67-11:2]. In the inventive Example 1, the block components are blended in solution [14:45-49] and precipitated out of the solution after reaction [14:55-58].

7. Claims 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kangas et al (EP 0 344 912 B1).

8. Kangas et al disclose isocyanate terminated polymers for hot-melt compositions comprising the reaction product of two or more hydroxy-functional polymers with polyisocyanates [page 2 lines 31-34] wherein the hydroxy-functional polymers include a blend of poly ε-caprolactone and at least one linear polyester selected from a group including polyethylene adipate [page 2 lines 52-53].

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL DOLLINGER whose telephone number is (571)270-5464. The examiner can normally be reached on Monday - Thursday 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Randy Gulakowski/
Supervisory Patent Examiner, Art Unit 1796

MICHAEL DOLLINGER
Examiner
Art Unit 1796

/mmd/